

**USGS-NPS Vegetation Mapping Program**  
**Congaree Swamp National Monument**

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**Quercus phellos / Carex (intumescens, joorii) / Sphagnum lescurii Forest**

COMMON NAME Willow Oak / (Bladder Sedge, Cypress-swamp Sedge) Yellow Peatmoss Forest

SYNONYM

PHYSIOGNOMIC CLASS Forest (I.)

PHYSIOGNOMIC SUBCLASS Deciduous forest (I.B.)

PHYSIOGNOMIC GROUP Cold-deciduous forest (I.B.2.)

PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (I.B.2.N.)

FORMATION Seasonally flooded cold-deciduous forest (I.B.2.N.e.)

ALLIANCE *Quercus phellos* Seasonally Flooded Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Palustrine

RANGE

*Globally*

This community is present in the Piedmont of Virginia, North Carolina, and South Carolina, and the inner Coastal Plain of South Carolina, and possibly of North Carolina and Virginia as well.

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This forest type occurs in the uplands of the park.

ENVIRONMENTAL DESCRIPTION

*Globally*

These forests occur in upland depressions that have restricted water permeation due to a subsurface clay layer. Flooding persists well into the growing season most years, but the water level usually is below the soil surface by the end of the growing season.

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*Quercus phellos / Carex (intumescens, joorii) / Sphagnum lescurii* Forest occurs in the northern portions of the park in isolated, upland, depressional wetlands.

MOST ABUNDANT SPECIES

*Globally*

Stratum

Tree canopy

Herbaceous

Species

*Quercus phellos, Quercus lyrata, Liquidambar styraciflua*

*Carex* spp.

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Stratum

Tree canopy

Herbaceous

Species

*Quercus phellos, Liquidambar styraciflua, Acer rubrum*

*Chasmanthium laxum* var. *sessiliflorum*

DIAGNOSTIC SPECIES

*Globally*

*Quercus phellos, Carex joorii, Carex intumescens, Sphagnum lescurii*

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*Quercus phellos*, *Liquidambar styraciflua*, *Acer rubrum*, *Ilex decidua*, *Chasmanthium laxum* var. *sessiliflorum*, *Sphagnum* sp.

VEGETATION DESCRIPTION

*Globally*

These forests are usually dominated by an almost pure canopy of *Quercus phellos*, sometimes with some *Quercus lyrata*, *Quercus bicolor*, or *Liquidambar styraciflua*. *Pinus taeda*, *Ulmus alata*, *Quercus stellata*, and *Acer rubrum* var. *rubrum* also may be present. Occasionally there is an herb layer of *Carex* spp., *Juncus coriaceus*, and *Trachelospermum difforme*, among others; *Sphagnum lescurii* and *Climacium americanum* are important moss species.

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The closed canopy of this community is dominated by *Quercus phellos* and *Liquidambar styraciflua* with an emergent canopy of *Pinus taeda* and a subcanopy of *Acer rubrum*. Other canopy and subcanopy species which may be present are *Ilex decidua*, *Nyssa biflora*, *Quercus nigra*, *Quercus pagoda*, *Quercus stellata*, *Carya alba*, *Diospyros virginiana*, *Ilex opaca*, *Magnolia virginiana*, *Quercus michauxii*, *Ulmus alata*, and others. The shrub layer is sparse and may contain *Vaccinium elliotii*, *Gaylussacia frondosa*, *Myrica cerifera*, canopy and subcanopy species, and possibly others. Herb and vine coverages are sparse to moderate, and species in these strata include *Chasmanthium laxum* var. *sessiliflorum*, *Carex jorii*, *Rhynchospora glomerata*, *Mitchella repens*, *Gelsemium sempervirens*, *Smilax hispida*, *Smilax bona-nox*, *Trachelospermum difforme*, *Ampelopsis arborea*, *Smilax tamnoides*, *Vitis rotundifolia*, *Toxicodendron radicans*, *Bignonia capreolata*, and likely others.

OTHER NOTEWORTHY SPECIES

The exotic *Lonicera japonica* is present in occurrences of this community.

CONSERVATION RANK            G2G3

RANK JUSTIFICATION            Much of the habitat for this community has undergone drainage and conversion (see comments below).

DATABASE CODE                CEGL007403

COMMENTS

*Globally*

Upland depression swamps provide important amphibian breeding habitat.

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Two of the occurrences showed evidence of drainage of the sites. Upland depression swamps provide important amphibian breeding habitat.

REFERENCES